

## ABSTRACT

The invention discloses an interconnection structure and a method for configuring path between the optical networks. The optical network includes a first network and a second network, the first network and the second network each has a number of nodes, a first node of the first network connects with a third node of the second network, a second node of the first network connects with a fourth node of the second network. The method comprises the steps of: setting-up a first path between one of the first node and the second node and another node of the first network; and at least by one link of the link between the first node and the third node and that between the second node and the fourth node, and by the first path, said another node of the first network communicates for path with another node of the second network. By the dual-node interconnection structure and the path configuration scheme of this invention between a ring network and a mesh network, and between mesh networks, the respective advantages of the ring network and the mesh network in regard to protection and restoration can be combined effectively, and the existing internetworking schemes between the rings are also compatible.

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